compares individual descriptions of *V. litorea* with each other one finds considerable variation. The most marked disagreement comes with the description and figure given by Newton (1931, p. 104, fig. 68B–D), whose cited dimensions for the antheridia of 55–65 microns would make them slenderer than the filaments, given as 70–95 microns, although she figures them as wider. Perhaps her description "oogonium almost spherical, 190–450 microns in diam." refers to the oospore, since she figures the oogonium as a clavate structure (fig. 68D), though one must observe that 450 microns is unexpectedly long, even for the longer diameter of these oospores, more in line with the longer dimensions given for oogonia (DeToni 1889). However, we may accept it that the filaments and the antheridia of *V. litorea* are in general distinctively more slender than in *V. longicaulis*, the oogonia are not very different in size, but the oospores are considerably smaller.

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CAREX DIVERSISTYLIS, A NEW SPECIES FROM OREGON

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Carex diversistylis sp. nov. Caules quam folia breviores glabri ca. 10 cm. alti e rhizomatibus brevibus. Paginae foliorum 1.5 — 2.5 mm. latae. Spicae masculae solitariae 7 — 9 mm. longae 1.5 mm. latae; spicae feminae 2 — 4 infimae folio suffultae; flosculis 4 — 8; perigynia 2 — 3 mm. longa valde stipitata pubescentia orbiculata elliptica bicarinata ceterum enervata rostro abrupto 1 mm. longo apice vix bidentato;

styli 2 — 3 (plerumque 3) in eadem spica; squamae ovatae acuminatae vel acutae.

Low cespitose mats from short rootstocks; the culms ranging from very short to 10 cm. high, shorter than the leaves, very slender, smooth. Leaf blades light green, 1.5 — 2.5 mm. wide, slightly roughened towards apex, basal sheaths dark red, nerves scabrous; bract of lowest non-basal pistillate spike leaf-like, exceeding culm, slightly brown-tinged at base. Staminate spike solitary, 7 — 9 mm. long, 1 — 1.5 mm. wide; pistillate spikes 2 — 4, usually 4 — 8 flowered, upper 1 — 2 approximate, short-pedicellate, lowest basal spike on a filiform peduncle subtended by a leaf; perigynia 2 — 3 mm. long, strongly stipitate, pubescent, 2-keeled but otherwise nerveless, body more-or-less terete, elliptic, abruptly narrowed to a beak 1 mm. long, one-third as long as the body, apex scarcely bidentate, styles 2 or 3, mostly 3, in same spike; scales ovate, acuminate or acute, light green or with chestnut submarginal stripes, midnerve green often scabrous towards apex.

Type. Among interstices of basalt blocks one-quarter mile north of Clear Lake Junction on U.S. Highway 20, Linn County, Oregon, *A. W. Roach 202*, June 10, 1949 (Oregon State College Herbarium).

Carex brevipes W. Boott and *C. Rossii* Boott are close relatives of *C. diversistylis*. In detailed comparative charts of characteristics, the latter differs from both chiefly in a diversity of style number and an absence of culm scabrousness. In the section *Montanae* of the floras of Abrams (1940, p. 286), Mackenzie (1940, pl. 229), and Peck (1941, p. 163), this entity runs to *C. brevipes* since its perigynia are of the same length and its beaks are shallowly bidentate. Yet its culms are shorter than the leaves, the staminate spikes are smaller, the pistillate spikes are much fewer-flowered, and the perigynial beaks are chestnut-striped. And though these characters are typical of *C. Rossii*, *C. Rossii* has larger, more pubescent perigynia whose beaks are more deeply bidentate. Other sources (Fernald 1950; Small 1933; Marie-Victorin 1947) failed to reveal other species of close affinity.

The occurrence of 2 or 3 styled gynoecia in the same spike is of particular interest in that it is rare for this genus. However, one other species, the trigonous *C. novae-angliae* Schwein., which occurs in this tribe, shows diversistyly (Marie-Victorin 1947, p. 725).

The complete range of the new species is not known. The type material was secured during the compilation of floristic lists for a phytosociologic analysis of the associations of the Nash Crater lava flows (Roach, 1950). This area, roughly ten square miles in extent, is the northern end of a recent magmatic chain (490 years old) which extends from

the Santiam region south to the McKenzie-Three Sisters region. Since this species is wide-spread in scattered mats over the barer basalts in association with *Juncus Parryi* Engelm. and *Penstemon Menziesii* var. *Davidsonii* (Greene) Piper, and in view of its communal-edaphic amplitudes it seems possible that this species is co-extensive with the whole more-or-less homogeneous chain of basalts.

Grateful appreciation is acknowledged Dr. H. M. Gilkey, Curator of the Oregon State College Herbarium who confirmed the style diversity in the fresh material and later checked the work on this species; Miss D. Babb, North Texas State College, who criticized the Latin context; and Mrs. R. S. Ferris, Assistant Curator of the Dudley Herbarium, who loaned authoritative specimens.

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REVIEWS

Handbook of North Dakota Plants. By Orin Alva Stevens. The North Dakota Institute for Regional Studies, North Dakota Agricultural College, Fargo, North Dakota. 324 pp., frontispiece, figures 1–319. 1950. $4.50.

The Handbook of North Dakota Plants satisfies a long-felt need for a comprehensive manual on the Flora of North Dakota. It is limited to plants known to occur in the State as native or introduced species which are growing in the wild. Although the Handbook is based primarily on botanical collections beginning in 1890 with the establishment of the North Dakota Agricultural College, it has drawn heavily upon the careful field and herbarium studies of the North Dakota flora made by Dr. Stevens over a period of forty years. This is reflected in the brief but very useful and pertinent comments on various species. Aside from the usual technical descriptions, the volume contains much useful information on the ecology,